

INFANTRY NEWS



THE 1994 INFANTRY Conference will be held at Fort Benning, Georgia, 9-12 May 1994. Additional information is available from CPT Stempniak, DSN 835-4147 or commercial (706) 545-4147.

A WARFIGHTING IDEA hotline has been established at the U.S. Army Training and Doctrine Command (TRADOC). Its purpose is to solicit suggestions from soldiers and civilian employees that can be applied to existing doctrine or used to

develop future doctrine.

A telephone hotline was chosen to make it easy for soldiers and civilian employees throughout the Army to contribute their knowledge to meet the Army's challenges. Specifically, TRADOC is soliciting imaginative ideas on doctrine, materiel, training, leader development, and soldiers, as they apply to the battlefield.

A hotline caller will be notified within two working days that his or her idea was received and is being considered; 30 days

later, whether the idea has merit or not, the caller will receive an update on the status of the idea.

The hotline number is 1-800-445-IDEA (4332) or DSN 680-IDEA (4332).

SOLDIERS GRADUATING FROM advanced individual training and one-station unit training will soon be issued uniforms and selected equipment that they can keep for the rest of their time in the Army.

Allowing soldiers to keep essential field clothing and equipment, instead of turning it in each time they change duty stations, is expected to instill in them a pride of ownership and improve their readiness and professionalism.

The Soldier Support Division (SSD) of the U.S. Army Training and Doctrine Command acts as a user representative in determining requirements and product improvements for all clothing and individual equipment (CIE) for soldiers.

The following are among many improvements now being pursued:

- The possibility of developing one uniform style for both air and armor crews. (Currently, air crews wear two-piece uniforms and armor crews one-piece.)

- Cordless communications for armor and aviation crews. (The system would improve safety during dismounted operations and improve command and control. Soldiers would not have to plug into a radio system to talk with each other.)

- Several types of nuclear, biological, and chemical (NBC) uniforms as alternative means of protection. (This effort includes new gloves for the NBC uniform that will be less bulky and more flexible so a soldier can handle a weapon or a computer while wearing them.)

- An undergarment to protect against chemical agents. (Recently approved for production, this undergarment will be es-



THE NEW DIGITAL MESSAGE Device Group (DMDG), Model C, is used for the transmission and receipt of secure data communications over a variety of attached radio equipment, including HF, VHF, and satellite systems.

It also incorporates a programmable modem that uses advanced digital signal processing techniques to generate signals that interface directly with the audio circuits of a manpack radio. The modem can be modified easily in the field for any fu-

ture modem waveforms, while the original DMDG modem was hardwired for a single waveform.

Other features of the new model include a user-friendly, menu-driven interface (making it simple to learn and operate); larger message memories; and full backwards compatibility with the earlier versions. An earlier model DMDG can be upgraded to a Model C in about 15 minutes.

pecially good for armor crews, enabling them to function more freely. With it, these crews would not have to squeeze into tanks wearing bulky and hot NBC suits.)

The SSD also represents the user on a Department of Defense working group that evaluates clothing and textile items for potential joint service use and oversees the Soldier Enhancement Program (SEP). SEP is an initiative aimed at acquiring items that are commercially available.

A DIGITAL COMPASS SYSTEM for the Bradley fighting vehicle is to be produced under a recently awarded contract. The contract calls for the integration of a unique electronic compass technology with the Army's new precision

lightweight global positioning system (GPS) receiver (PLGR) to produce compasses for the Army's fleet of Bradleys.

One benefit of this compass is its ability to overcome the severe magnetic deviation created by the armor on the vehicle. Another benefit is its ability to interface with the Bradley's PLGR system receiver and tactical computers.

In the Bradley, simple customized displays will interface with the GPS to show the driver and the commander all the navigation information they need. The GPS pinpoints the vehicle's current location within meters, anywhere on earth. The compass provides critical steering and pointing information to help keep the vehicle crew oriented on the battlefield and allow them to steer quickly to their destination. If the external GPS signals

are blocked or neutralized, the compass can automatically calculate the vehicle's latest position by dead reckoning. All information is immediately available digitally in order to communicate with the other electronics on the vehicle, or to be transmitted to mission planners or other vehicles to facilitate synchronized operations.

The fleet of Bradleys to be equipped with these digital compasses will be part of an Army program to improve Bradley capabilities on the basis of lessons learned from the Persian Gulf War in 1991.

During Operation DESERT STORM, it was discovered that U.S. military units, trained to confront Warsaw Pact forces on well-surveyed European terrain, were not prepared to navigate in the desert. To determine direction, armored vehicle

BRADLEY CORNER

THE BRADLEY PROPONENCY Office in the 1st Battalion, 29th Infantry, at Fort Benning publishes Bradley fighting vehicle and Stingray training and field manuals, and also provides subject matter experts to assist in related developments. The office is working on several projects and welcomes comments from the field on them:

Change 1, Field Manual (FM) 23-1, *Bradley Fighting Vehicle Gunnery*, should reach the field by January 1994; and Student Handout (SH) 23-1, *Interim Publication for Bradley-equipped Echo Companies*, by February 1994.

The FM 23-1 change includes a threat-based gunnery methodology, the point-calculation worksheet. After the change is distributed to units, an 18-month transition period will be in effect. During this time, unit commanders will score their gunnery tables using both the new worksheets and the current matrices for qualification scoring and for reporting and evaluating their progress toward National Training Center (NTC) gates (requirements that must be met before NTC rotations).

Units are asked to send the proponency office all the accumulated data from

their gunneries—such as the engagement times for each target and the ranges to the targets—so that any necessary corrections can be made before the complete revision of FM 23-1, which is planned for 1995.

This change also incorporates Bradley Gunnery Skills Test (BGST) Task 19 (Vehicle Identification). Thirty mandatory vehicle slides and an initial list of vehicles for the tasks were mailed in May 1993 to the division master gunners in Bradley-equipped divisions. That initial list has since been reviewed by the Infantry School's Foreign Analysis Division, and some changes are expected. A revised list will be sent to the master gunners when it is completed.

Meanwhile, the Bradley Proponency Office needs assistance in locating unclassified photographs of the vehicles listed so the best possible images can be incorporated. These photos will then be reproduced and distributed by the U.S. Army Training Support Center.

SH 23-1 will lay out the Infantry School's intent on the initial training strategy for the proposed MOS 11HD3 (Bradley-qualified heavy antiarmor infantryman), along with the Echo com-

pany gunnery training strategy.

Other new Bradley developments include the following:

- The M919 APFSDS-T (armor-piercing fin-stabilized discarding sabot-training) round, which was type-classified in September 1993.

- The Rock Island cannon bore erosion gauge, which is now available. The gauge allows master gunners to check the remaining life of their 25mm gun barrels. The correct number for ordering the gauge is NSN 5210-01-329-4860; the cost is \$25.54; and the authority for requisitioning the gauge is TM 9-1005-200-20&P.

Also under development are BFV/Stingray training devices such as the Thru-Sight Video, the Close Combat Tactical Trainer, the Advance Gunnery Training System, and the Precision Gunnery System.

To obtain additional information on any of these projects, or to offer comments, units may write to Commander, 1st Battalion, 29th Infantry, ATTN: ATSH-INA-BPO, Fort Benning, GA 31905; or call DSN 784-6201/6136, commercial (706) 544-6201/6136.

commanders often had to leave the safety of their vehicles and walk several dozen yards away from its magnetic influence to take compass readings with their handheld lensatic compasses.

In addition, it was found that the inability to navigate and maintain battlefield orientation contributed to some of the war's friendly fire casualties. These compasses will enable armored vehicle commanders to better synchronize their movements, with the rest of their unit staying out of harm's way, while also helping distinguish between enemy and friendly forces.

The engineering portion of the contract is to be completed by December 1994; production is to begin in early 1995 and to be completed by the year 2000.

THE LIGHTWEIGHT FIGHTING Position Excavator System, also called the Badger, is designed to help soldiers create a two-man fighting position quickly and safely.

The system uses a hand auger and a soil-loosening explosive charge, both of which are common products readily available in forestry and mining industries, modified for military use. The explosive is completely inert during transportation and storage and is suitable for air delivery. The total system weighs less than nine pounds.

To operate it, a soldier bores two holes with the auger. The binary explosive is then mixed in its container and one explosive container is dropped down each bore hole. The soldier initiates the explosive from a distance of at least 20 meters,

using a non-electric initiator and Primeline connected to the blasting cap. The loosened soil is removed, and the soldier finishes shaping the position by hand.

AN AWARENESS OF CULTURAL diversity among members of the armed services and a concern for global humanitarian efforts have led to the development of two new versions of the MRE (meal-ready to eat):

The Multi-Faith Meal (MFM) uses *kosher* and *halal* restrictions to keep the new entries and the existing MRE components compatible with a broad range of religious dietary restrictions.

Six new MFMs, some of which are vegetarian, were field tested in Septem-

THE ALLIED KINETIC ENERGY Recovery Rope (AKERR), which allows a tracked armored vehicle to pull a like vehicle out of the mud, was adopted by the Army in 1990.

Some wheeled vehicles are equipped with winches that enable them to recover themselves and similar vehicles, but armored tracked vehicles—with the exception of the M578 and M88A1 recovery vehicles—do not have such winches. To recover a mired tracked vehicle, a like vehicle must be able to approach close enough to connect towing cables and exert pulling force without becoming mired itself. The AKERR allows for quick and simple like-vehicle recovery without cable winches.

The AKERR kit consists of a braided nylon cable and special shackles to connect the cable to vehicles. The shackles in the kit are specially designed to withstand the tremendous forces generated.

The cable is designed to stretch under a load. (If it were a steel cable, there would be no give to it and the shackles would snap, or the cable would break.) The energy of the pulling force is imparted to the rope, which passes it on to the mired vehicle. All the pulling force generated by the recovering vehicle can then be used, without danger, to effect the recovery. (The breaking strength of

the rope is 158,700 pounds or 79.4 tons).

Each recovery operation involves different circumstances, but the technique for using the AKERR is basically the same for all:

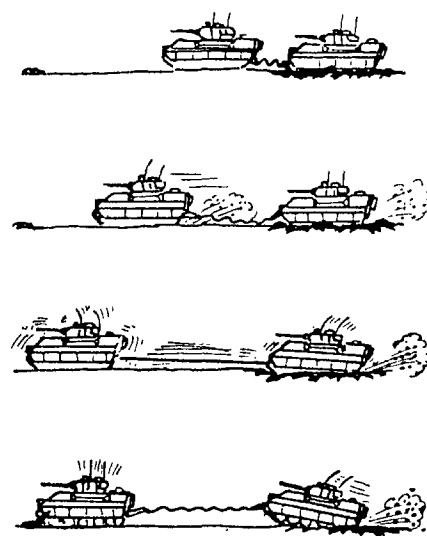
- The recovering vehicle, of the same weight class or heavier, backs up as close to the mired vehicle as possible and centers on it.
- The rope is connected to both vehicles.
- The recovering vehicle accelerates

away from the mired vehicle.

- The rope stretches, pulls taut, then transfers the recovery vehicle's energy to the mired vehicle.
- The mired vehicle, driven by its tracks, pulls free. (It may take more than one pull.) See illustration.

Technical Manual 9-4020-200-10 covers the AKERR components and their uses in detail.

(This item was contributed by SFC Jerry Ruth, Little Falls, Minnesota.)



ber and October 1993. The data from these tests is still being analyzed, but initial information indicates that the meals were well received. Pending final approval, one or two MFMs will be included in each case of MRE rations.

The Humanitarian Daily Ration (HDR) is a more cost-effective and universally acceptable version of the MRE. Although the MRE has served as a humanitarian aid ration during various crises around the world, it is not designed to be universally acceptable or culturally correct.

The HDR is specifically designed for malnourished people whose digestive systems cannot yet handle more substantial meals such as MREs. In terms of the menu itself, the HDR still contains 44 percent of the original MRE food products. It requires no special preparation before eating and can be delivered by airdrop.

Six HDR menus are now available, containing an average of 1,138 calories each. All of the meals are vegetarian and will sustain a person for one day. An HDR costs \$3.95 and meets the nutritional standards of the World Health Organization.



This sample kosher menu for the Multi-Faith Meal (MFM) is one of the six MFMs offered to meet the religious and dietary restrictions of servicemen.

